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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/629,588	07/30/2003	Tetsuo Ashizawa	108397-00108	6176
4372	7590	09/27/2004	EXAMINER	
ARENT FOX KINTNER PLOTKIN & KAHN 1050 CONNECTICUT AVENUE, N.W. SUITE 400 WASHINGTON, DC 20036			TRAN, MICHAEL THANH	
			ART UNIT	PAPER NUMBER
			2818	

DATE MAILED: 09/27/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/629,588	ASHIZAWA ET AL.	
	<b>Examiner</b> Michael t Tran	<b>Art Unit</b> 2818	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 30 July 2003.
- 2a) This action is FINAL.                    2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 1,12,14 and 19 is/are rejected.
- 7) Claim(s) 2-11,13,15-18 and 20 is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All    b) Some \* c) None of:
1. Certified copies of the priority documents have been received.
  2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>073003</u> . | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

1. In response to the Communications dated July 30, 2003, claims 1-20 are active in this application.

### ***Foreign Priority***

2. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)(d), which papers have been placed of record in the file.

### ***Claim Objections***

3. Claims 2-11, 13, 15-18, and 20 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

It appears that the phrase “second substrate”, in claim 14 and its dependents, should be changed to –substrate--; the phrase “third driver”, in claim 14 and its dependents, should be changed to –second driver--; and the phrase “third buffers”, in claim 14 and its dependents, should be changed to –second buffers--.

### ***Claim Rejections – 35 U.S.C. § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

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(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in-

(1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effect under this subsection of a national application published under section 122(b) only if the international application designating the United States was published under Article 21(2)(a) of such treaty in the English language; or

(2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that a patent shall not be deemed filed in the United States for the purposes of this subsection based on the filing of an international application filed under the treaty defined in section 351(a).

5. Claims 1 and 12 are rejected under 35 U.S.C 102(b) as being anticipated by Saito et al. [U.S. Patent #5,629,888].

With respect to claim 1, Saito et al. disclose, figure 29, a semiconductor memory comprising: a plurality of memory cells [figure 29] having transfer transistors [coupled to WL] and driver transistors [coupled to CNTL], respectively; a plurality of word lines [WL] connected to gates of said transfer transistors [figure 29], respectively; a first driver circuit [word line driver&decoder] having a plurality of first buffers for generating voltages to be supplied to said word lines, respectively; a plurality of first substrate lines [PL's] connected [indirectly] to substrates of said transfer transistors and of said driver transistors, respectively; and a second driver circuit [control line driver decoder] having a plurality of second buffers for operating in synchronization [figure 23] with said first buffers to generate voltages to be supplied to said first substrate lines, respectively. It is noted that the drivers' components are being interpreted as buffers.

With respect to claim 12, Saito et al. disclose, in figure 29, a memory cell array composed of said memory cells, wherein said first driver circuit [word line driver] is

disposed on one side of said memory cell array and said second driver circuit [control line driver] is disposed on the other side of said memory cell array.

6. Claims 14 and 19 are rejected under 35 U.S.C 102(b) as being anticipated by Saito et al. [U.S. Patent #5,629,888].

With respect to claim 14, Saito et al. disclose, in figure 29, a semiconductor memory comprising: a plurality of memory cells [figure 29] having transfer transistors [coupled to WL] and load transistors [coupled to CNTL], respectively; a plurality of word lines [WL] connected to gates of said transfer transistors, respectively; a first driver circuit [word line driver] having a plurality of first buffers for generating voltages to be supplied to said word lines, respectively; a plurality of second substrate lines [PLs] connected [indirectly] to substrates of said load transistors, respectively; and a third driver circuit [control line driver] having a plurality of third buffers for operating in synchronization [figure 23] with said first buffers to generate voltages to be supplied to said second substrate lines, respectively. It is noted that the drivers' components are being interpreted as buffers.

With respect to claim 19, Saito et al. disclose, in figure 29, a memory cell array composed of said memory cells, wherein said first driver circuit [word line driver] is disposed on one side of said memory cell array and said second driver circuit [control line driver] is disposed on the other side of said memory cell array.

***Allowable Subject Matter***

7. The following is an Examiner's statement of reasons for the indication of allowable subject matter: the prior art of records does not show (in addition to the other elements in the claim) the following:

- ❖ Each of said second buffers supplies a voltage for raising the threshold values of said transfer and driver transistors to said corresponding first substrate line when a voltage for turning off said transfer transistor is supplied to said one of said word lines.
- ❖ Wherein said first and second driver circuits are arranged on one side of said memory cell array.
- ❖ Said first substrate lines are connected to first substrate areas, respectively, each of said first substrate areas being formed in common for two adjoining memory cells of said memory cells; and said second buffers are formed correspondingly to said first substrate areas, respectively.
- ❖ Each of said third buffers of said third driver circuit are arranged between two first buffers of said first driver circuit.

### ***Conclusion***

8. When responding to the Office action, Applicants are advised to provide the Examiner with line and page numbers of the application and/or references cited to assist the Examiner in the prosecution of this case.

9. Any inquiry concerning this communication or earlier communications from

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the Examiner should be directed to Michael T. Tran whose telephone number is (571) 272-1795. The Examiner can normally be reached on Monday-Thursday from 7:30-6:00 P.M.

10. Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (571) 272-1650.



Michael T. Tran  
Art Unit 2818  
September 22, 2004